

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Gregory Scott  
Edward A. Garvey  
Marshall Johnson  
LeRoy Koppendrayner  
Phyllis A. Reha

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of an Investigation into  
Disclosure of Environmental Information to  
Utility Customers

ISSUE DATE: September 3, 2002

DOCKET NO. E,G-999/CI-00-1343

ORDER CLARIFYING DISCLOSURE  
REQUIREMENTS AND SETTING  
PROCEDURAL SCHEDULE

**PROCEDURAL HISTORY**

On October 27, 2000, the Commission issued its ORDER AUTHORIZING DISPLAY OF OVERALL AVERAGE GENERATION COSTS ON CUSTOMERS' BILLS AND OPENING AN INVESTIGATION INTO DISCLOSURE OF ENVIRONMENTAL INFORMATION. That Order initiated the current docket and directed rate-regulated utilities to submit proposals for environmental disclosure.

On May 3, 2001, the Minnesota Department of Commerce (the Department), the Minnesota Pollution Control Agency (MPCA) and Minnesotans for an Energy Efficient Economy (ME3) (collectively, the Joint Commentors) sent the draft brochure (Joint Proposal) to all parties. By June 21, the Commission had received comments from the Clean Water Action Alliance (CWAA), Minnesota Power Company (Minnesota Power), Northern States Power Company d/b/a Xcel Energy (Xcel), the Residential and Small Business Utilities Division of the Minnesota Office of the Attorney General (RUD-OAG), and jointly from Dakota Electric Association (Dakota Electric) and Great River Energy (GRE).

On October 2, 2001, the Commission issued an ORDER REQUIRING DISCLOSURE AND COMPLIANCE FILING (October 2 Order). That Order gave guidance to the parties, excused natural gas utilities from further participation in the docket, and suggested that the remaining participants form a workgroup with an independent facilitator.

The Department convened several workgroup meetings with the assistance of facilitator Cheryl Harrington of the Regulatory Assistance Project. On January 14, 2002, the Department filed a Workgroup Report and a Summary of Report to Interested Parties.

By February 1, 2002, the Commission had received a compliance filing including a sample brochure from Alliant Energy (Alliant), Minnesota Power, Otter Tail Power Company (OTP), Xcel, and jointly from Dakota Electric and GRE.

On March 4, 2002, the Department, ME3, and RUD-OAG filed comments on the sample brochures.

By March 22, 2002, the Commission had received reply comments from Alliant, CWAA, Dakota Electric, the Department, the Izaak Walton League of America (IWLA), Minnesota Witness for Environmental Justice (MWEJ), Minnesota Power, MPCA, OTP and Xcel.

The Commission met on June 6, 2002 to consider this matter.

## **FINDINGS AND CONCLUSIONS**

### **I. Background**

The Commission opened this docket to –

*... address the issue of what environmental costs should be disclosed on customers' bills and how such costs would be disclosed. This docket will involve all rate-regulated utilities in Minnesota. The Commission recognizes that there is a need for the consumer to be informed and educated on environmental issues and that all Minnesota utilities' customers ... should have similar access to information. For this reason, the Commission will ... open a separate docket giving all rate-regulated utilities in Minnesota the opportunity to put forth proposals on this matter.<sup>1</sup>*

In its October 2 Order, the Commission further explained the docket's goals, and offered further direction as follows:

*The Joint Commentors propose a specific format for a brochure. This brochure would be roughly 8 ½ inches by 11 inches and fold into three panels on each side of the page. One side would contain a cover page urging customers to "Use Energy Wisely," a list of ideas to save energy, and phone numbers and Web addresses where consumers could obtain more information. The other side would provide more utility-specific information. For example, it would display a pie chart*

---

<sup>1</sup>ORDER AUTHORIZING DISPLAY OF OVERALL AVERAGE GENERATION COSTS ON CUSTOMERS' BILLS AND OPENING AN INVESTIGATION INTO DISCLOSURE OF ENVIRONMENTAL INFORMATION (October 27, 2000) at 4-5.

*indicating the resources that a utility uses to meet customer demand (such as coal-generation, nuclear generation, conservation, etc.). It would also have a bar graph indicating how the utility's level of waste compares to the regional average. And it would provide information about the environmental harms resulting from various types of waste from electric generation.*

*The Commission finds the Joint Commentors's format agreeable. Having reviewed the filed comments, however, the Commission will make the following changes:*

***1. Title or cover page***

- The parties should develop an appropriate, policy-neutral title or cover page for the brochure.*

***2. Pie chart***

- Some commentors question whether the colors used in the pie chart - using black for coal, green for wind/solar, etc. - stigmatize certain resources. In the interest of avoiding this problem, the Commission will direct utilities to use the same color for all pieces of the pie chart....*
- ....The Commission concludes that it is not necessary to include conservation within the pie chart of resources used to meet customer needs. Instead, each utility should address the role of conservation elsewhere in the brochure, including the amount of electricity conserved and the amount of air emissions avoided.*

***3. Bar graph***

- ....The Commission will direct that references to nuclear waste be removed from the bar graph of emissions, but be included elsewhere in the brochure.*
- ....The Commission will direct each utility to develop an air emissions comparison chart, showing the average air emissions from generators powered by coal, natural gas, nuclear fission, wind, water, solar and biomass.*

***4. Conservation measures***

- Minnesota Power discussed including conservation and other programs in the brochure. The Commission will direct parties to do so.*

***5. Miscellaneous***

- *To further clarify the distinctions between different generation sources, the Commission will direct electric utilities to state the amount of air emissions generated per unit of electricity generated for each source of generation, including purchased energy. If the source of the purchased power is not known, an air emission proxy should be used. Ideally the utility would use the seller's system average air emissions, but the utility may elect to use the air emissions average for the Mid-Continent Area Power Pool (MAPP) system instead....*
- *To provide more context for these emissions numbers, the Commission will also direct utilities to include in the brochure their system-wide average cost of electricity generated by each different type of fuel, as well as the average cost saved through demand-side management efforts.*
- *In their June 18, 2001 comments, Dakota Electric and Great River Energy provide language that describes the pros and cons of each generation source in terms of reliability, costs, and environmental impact....*

*This language sums up much of what the Commission wishes to convey. The Commission will direct utilities to incorporate similar language into their brochures.*

Today the Commission offers additional direction.

## **II. Status to Date**

In its January 14 report, the Department notes that the parties have made progress on a number of issues identified in the Commission's October 2 Order. The Department analyzed the brochures for compliance with the Order and for application of the agreement developed in the work group. The Department concludes that each utility has made a good-faith effort to comply with the Order and agreements developed in the work group, and that the proposed brochures would provide utility customers with more information about electricity than they currently have.

The Department is satisfied that the efforts of the work group in this proceeding should advance the knowledge of Minnesota consumers about basic concepts regarding electricity production in general, resources used to produce electricity, characteristics of those resources (cost, reliability and emissions), and actions consumers can take either to decrease their energy bills or to use electricity that results in fewer emissions. While there was not a consensus on a draft brochure, the process has helped clarify areas of disagreement.

The Commission is pleased with this progress to date, and will now address the remaining areas of disagreement.

### **III. Substantive Issues**

#### **A. Generation cost**

While the Commission wishes to provide the public with access to information about the environmental effects of various sources of electricity, context requires the disclosure of other important attributes of those sources, cost and reliability in particular. Consequently the October 2 Order directed each utility to disclose its system-wide average cost of electricity generated by each different type of fuel.

The utilities object to this requirement. Among other things, they allege that this requirement mandates the disclosure of competitively sensitive data, and could confuse customers who compare generation costs with bill statements. In lieu of disclosing actual costs, the work group proposes a table ranking generation sources in terms of cost per kilowatt-hour (kWh), along with a separate table ranking generation sources by reliability.

The Commission finds the utilities' concerns, and the proposed remedy, reasonable. The Commission will modify its earlier Order requiring system average costs for each generation source, and instead will direct utilities to provide a ranking of its generation fuels by cost per kWh.

#### **B. Purchased power**

The October 2 Order directed utilities to disclose the source of their power on a pie chart, and to disclose the utility's level of waste. It also directed each utility to disclose the amount of air emissions from its generation sources, including the emissions associated with the electricity bought from other entities. If the utility did not know the type of generator that the seller used to produce its electricity, the utility could use the air emissions average for the seller's system, or for the entire MAPP system, as a proxy. The Order did not specifically address how purchased power would be represented on the pie chart, or in any list ranking resources by reliability or cost.

The issue of how to reflect purchased power in the brochures has provoked much discussion. MPCA, for example, argues that utilities are able to conceal their reliance on coal generation by simply including a large slice of "purchased power" in their pie charts. The utilities generally oppose reporting on emissions from purchased power, noting the difficulty of obtaining this information.

Moreover, many utilities object to reporting that they receive their electricity from a nuclear power plant if they don't own such a plant and have not contracted specifically to receive electricity from one. Even if they buy electricity from a utility that has a nuclear generator, they object to listing nuclear power among their generation sources. They reason as follows:

A utility with excess generating capacity at a given point in time must choose which generators to use to serve customer demand at that time. The utility will tend to use the generator with the lowest incremental cost first, the generator with the second-lowest costs second, and so on until it has satisfied the demands of its customers. If it has excess generating capacity, it may also sell

power to wholesale customers such as other utilities. To the extent that a wholesale customer seeks service, the utility would continue dispatching plants in order of lowest cost.

Nuclear plants tend to have low operating costs, so it is reasonable to expect that nuclear plants would be dispatched early for the purpose of serving existing (retail) demand. If a utility fully uses its nuclear plants to serve its retail demand, then a wholesale customer's choice to buy power from that utility would have no effect on the amount of nuclear power generated or the amount of nuclear waste produced. Consequently, it would be unfair and inaccurate to cause non-nuclear electric utilities to report that they use nuclear power -- and, by implication, contribute to nuclear waste.

The Commission acknowledges the complexity of this issue. In the interest of facilitating the development of environmental disclosure brochures and avoiding lengthy factual disputes, the Commission will clarify its October 2 Order as follows: An electric utility still must disclose the source of its electricity on a pie chart, and disclose the amount of air emissions from its generation sources, including the emissions associated with purchased power. But if after diligent attempt the utility cannot determine the source of that power, the utility may list "purchased power" among its power sources and use a proxy for its emissions disclosures. In this case, the utility must add to its brochure a clarifying statement similar to the following: "Purchases come from fuel sources (nuclear, coal, natural gas, etc.) from throughout the region."

However a utility addresses its purchased power issue, ME3 argues for consistency: the portfolio of supply options that forms the basis of the pie chart should also form the basis of the ranking of supply options by cost and reliability. The Department, MWEJ and the utilities largely agree with ME3. The Commission finds ME3's proposal reasonable, and will direct the utilities to use this policy in developing their brochures.

Parties have not reached consensus about the appropriate proxy to use for estimating particulate matter and other emissions generated by purchased power when the specific source of the power is unknown. MPCA and others propose using the MAPP system average emissions as a proxy because all of the utilities in this docket share electricity through MAPP. MPCA even offers to collect and report the relevant data. The Commission finds this proposal reasonable, and will accept it.

### **C. Pie chart color**

The October 2 Order also directed utilities to use the same color for all pieces of the pie chart, so as not to imply a stigma to any generation source. Xcel's draft brochure continues to use different colors for each generation source listed in its pie chart. Xcel acknowledges its oversight and agrees to change it. The Commission reminds all utilities to select a uniform color for their pie charts.

### **D. Emissions**

## 1. Bar graph vs. table

The October 2 Order directed each electric utility to develop an air emissions comparison chart, showing the average air emissions from generators powered by coal, natural gas, nuclear fission, wind, water, solar and biomass. The Order further directed each utility to state the amount of air emissions generated per kWh for each source of generation.

The utilities include a bar chart in their draft brochures as part of their compliance filings. But the number of pounds of carbon dioxide vastly exceeds the number of pounds of other emissions. Because the scale of the bar graph must accommodate the levels of carbon dioxide, the level of other emissions became barely distinguishable from zero.

Parties propose various suggestions for addressing this problem. For example, MPCA proposes depicting different types of emissions using different units, so that they appear to have a comparable order of magnitude when placed on the graph. But the utilities and others object, arguing that this practice could be confusing and suggests an artificial proportionality in the volume of various types of emissions. Alternatively, MWEJ proposes having a separate bar graph for each pollutant. But this proposal would require more space in the brochures.

ME3 suggests replacing the bar graph with a table listing the amount of emissions. ME3 offered the following example:

*Air Emissions by Fuel* (measured in pounds per 1,000 kilowatt-hours)

	<b>Carbon Dioxide</b>	<b>Sulfur Dioxide</b>	<b>Nitrogen Oxides</b>	<b>Particulate Matter</b>	<b>Mercury*</b>
<b>Coal</b>	2,716	8.35	6.9	0.99	0.03
<b>Natural Gas</b>	1,630	0	4.14	0	0

(and so on for other fuels)

*\*Mercury emissions measured in grams per 1,000 kilowatt-hours.*

Dakota Electric, IWLA, MPCA, Minnesota Power and Xcel generally support this proposal.

By listing air emissions by fuel type, a utility lets consumers know which fuels generate electricity with the least emissions. While a table lacks the visual appeal of a bar graph, it provides an unbiased solution to the problems created by the bar graph's format. The Commission finds ME3's suggestion reasonable, and generally will approve it.

But the Commission agrees with Xcel that there is no need to list mercury emissions using a different scale than the scale used for other emissions. The amount of mercury emissions may seem small when compared to the amount of other emissions; potentially this fact could lead a casual reader to conclude that the problems of mercury emissions are insignificant. But that analysis misses the point. The chart is designed to let the reader compare the amount of mercury (and other air emissions) emitted from using one type of fuel as opposed to another. The difference in magnitude between carbon dioxide and mercury emissions is not relevant to that comparison, and does not need to be “corrected.”

If commentors are concerned that the table may imply that mercury emissions are insignificant, adjusting the scale in the table is not the only way to address this problem. Rather, utilities may state what effects mercury emissions have on the environment. The Commission will address this issue below. But for purposes of the table disclosing air emissions by fuel type, the Commission will direct all measurement to be reported in units of pounds per 1000 kWh.

## **2. Clarification of October 2 Order regarding environmental effects**

The Commission’s October 2 Order prompted some confusion among the commentors when it cited two prior filings as guides:

- The Joint Proposal brochure included, among other things, a section entitled “How does electricity affect the environment?” that describes the effects of nuclear waste and five types of air emissions. The Commission’s October 2 Order directed electric utilities to base the brochure’s format on the Joint Proposal.
- On June 18, 2001, Dakota Electric and GRE filed draft language that included an evaluation of the reliability, cost and environmental impact of various types of generation. The October 2 Order concluded that this language summed up much of what the Commission wished to convey, and directed utilities to incorporate similar language into their brochures.

Some commentors read the October 2 Order to require brochures to include both a discussion of “How does electricity affect the environment?” as well as the language from the June 12 filing. Other commentors, including the utilities, conclude that the Commission intended the June 18 language to supplant the March 20 language about how electricity affects the environment.



Minnesota Power argues that including a discussion of the health effects of emissions is unwarranted. Health effects are complicated, depending on factors such as emissions concentrations, the mix of pollutants present, and an individual's level of exposure. Also, information on health effects is available elsewhere. Finally, Minnesota Power argues that it is inappropriate to discuss the health effects of emissions without also noting that emissions levels are already subject to regulation.

But CWAA, IWLA, ME3, MPCA and MWEJ argue that some discussion of environmental effects provides a necessary link in explaining how electric generation affects people. The Commission agrees. While a detailed discussion is not necessary, readers must be given some reason for understanding why they should care about emissions. The Commission will clarify that it intended parties to incorporate into their brochures both the Joint Proposal's discussion of the environmental effects of generating electricity as well as the June 18 filing's evaluation of different types of generation.

### **3. Revised language on environmental effects**

That being said, some parties propose revising the language explaining these environmental effects. In particular, ME3 suggests abbreviating the Joint Proposal language as follows:

#### ***How do Air Emissions Affect the Environment?***

**Carbon Dioxide** (CO<sub>2</sub>) is the principal greenhouse gas linked to global warming.

**Nitrogen Oxides** (NO<sub>x</sub>) and **Sulfur Dioxide** (SO<sub>2</sub>) contribute to smog and acid rain.

**Particulate matter** (sometimes called soot) contributes to asthma attacks and other respiratory illnesses.

**Mercury** is a toxic pollutant that contaminates some fish, making them unsafe for human or wildlife consumption.

MPCA also supports this language, or similar language used in Maine. But other parties recommend other modifications. For example, commentors did not agree about whether sulfur dioxide contributes to smog. Also, the Department and others argue for stating that the MPCA regulates and monitors some types of emissions, and that the Minnesota Department of Health issues guidelines regarding acceptable levels of mercury in fish.

The Commission finds these comments helpful, and will incorporate them into the brochures. In the course of the hearing, the Commission fashioned the following language, designed to reflect many of the commentors' concerns:

#### ***How do Air Emissions Affect the Environment?***

**Carbon Dioxide** (CO<sub>2</sub>) is the principal greenhouse gas linked to global warming.

**Nitrogen Oxides** (NO<sub>x</sub>) and **Sulfur Dioxide** (SO<sub>2</sub>) contribute to acid rain; NO<sub>x</sub> also contribute to smog.

**Particulate matter** (sometimes called soot) contributes to asthma attacks and other respiratory illnesses.

**Mercury** accumulates in some fish to levels exceeding current health department guidelines.

*The Minnesota Pollution Control Agency is responsible for ensuring that emissions from utilities meet air quality standards for NO<sub>x</sub>, SO<sub>2</sub> and smog.*

The Commission will direct parties to incorporate this language into their brochures, locating it beneath the chart labeled “Air Emissions by Fuel Type.”

#### **4. Biomass emissions**

One source of energy for generating electricity is the burning of wood, grasses or other “biomass.” Like many other fuels, burning biomass produces air emissions such as carbon dioxide. But unlike many other fuels, biomass fuels are grown, and the process of growing these plants actually extracts carbon dioxide from the air. For purposes of listing air emissions from biomass, Xcel proposes listing the amount of carbon dioxide generated when burned offset by the amount extracted from the air during growth. But ME3 advocates listing the total carbon dioxide emissions without any offset.

While understanding the net effect of biomass emissions can be useful for some purposes, the Commission notes that all the other emissions data offered by the commentors reflect the environmental consequences of the act of generation itself. In the interest of simplicity and uniformity, the Commission will direct parties to report the total carbon dioxide emissions from burning biomass to generate electricity, rather than the emissions released during burning minus the emissions consumed during growing.

#### **5. Coal emissions**

As noted above, the Commission’s October 2 Order directs electric utilities to base their brochure’s format on the March 30, 2001 Joint Proposal. The Joint Proposal brochure contained, among other things, the following language:

Statewide, coal-fired power plants in Minnesota generate: 55% of all SO<sub>2</sub> pollution, 36% of all CO<sub>2</sub> pollution, 32% of all mercury pollution and 19% of all NO<sub>x</sub> pollution.\* All other generation source contribute a small amount of pollution.

*\*Pollution is emitted from many places, such as industrial and commercial sources, cars, trucks, and home heating.*

Nevertheless, not all the utilities included this language in their compliance filings. They argue for an “even-handed” approach and note that the brochure does not call for comparable language about other types of generation. Minnesota Power notes that much of the generation used to serve

Minnesota customers is located outside Minnesota, so data related to emissions exclusively from in-state generators is misleading as best. But MPCA argues for retaining this language, noting coal's unique position as both the most used fuel and the fuel generating the most air emissions.

The Commission finds MPCA's arguments persuasive. Coal occupies a unique role as the source of a majority of Minnesota's electricity. By excluding consideration of out-of-state coal plants, the Joint Proposal may present a conservative account of coal's environmental impact, but that is not a reason to exclude the information entirely. The Commission will direct utilities to include the language on coal-fired power plants in their brochures.

## **6. Nuclear waste**

While the October 2 Order directs the utilities to disclose wastes associated with electric generation, it also directed them to remove references to nuclear waste from the bar graph of emissions and instead to include them elsewhere in the brochure.

The RUD-OAG emphasizes the importance of addressing nuclear emissions in these brochures. CWAA advocates including a nuclear statement in the brochure of each utility, but some utilities oppose this.

CWAA, ME3 and the Department offer different drafts. CWAA and ME3 propose saying:

Nuclear energy does not produce these air emissions, but produces radioactive air emissions, and both high- and low-level radioactive waste. Radioactive waste is toxic for thousands of years, requiring stringent handling, storage, and security procedures.

In 2001, nuclear power produced for the utility's customers resulted in the production of \_\_\_\_ pounds of radioactive waste for each 1,000 kilowatt-hours of nuclear generation.

In contrast, the Department proposes saying simply "Nuclear energy does not produce these air emissions, but does produce both high- and low-level nuclear waste." Alliant found this language agreeable and incorporated it into its draft brochure.

The Commission favors the Department's language as a succinct, accurate complement to the air emissions statements. Consequently, the Commission will direct the utilities to incorporate it into their brochures, immediately following the discussion of air emissions.

## **7. Wind, solar and hydro power emissions**

As a logical complement to the foregoing air emissions information, IWLA and ME3 propose including the following statement: "Wind, hydro, and solar power produce none of these air emissions. However, large hydro may destroy ecosystems and cultural resources."

MWEJ objects to this language, arguing that hydropower contributes to the amount of carbon

dioxide in the air. The process of damming a river to generate electricity floods areas where plants are growing. Those plants are no longer available to absorb carbon dioxide from the air; to the contrary, they then decompose, releasing carbon dioxide and methane, both greenhouse gasses. In addition, large dams can change the cultural environments in which they are built.

The Commission finds merit in all these suggestions. During the June 6 hearing the Commission fashioned the following language:

Wind and solar power produce none of these air emission. Large hydro power may alter ecosystems and cultural resources depending upon the location and design of the facility.

The Commission will direct the utilities to incorporate this language into their brochures.

Each draft brochure includes a statement to the effect that "Solar power is expensive and in early stages of development. Currently there are no large solar installations in Minnesota." Dakota Electric recommends that these sentences be retained. But ME3 argues that such statements are unrelated to environmental effects, and needlessly clutter the brochure. In the interest of streamlining the presentation of information, the Commission will eliminate these sentences from the brochures.

## **8. Chemical names and symbols**

IWLA, MPCA and ME3 ask the Commission to direct utilities to use the English name for emissions (such as "mercury") rather than their chemical symbols (such as "Hg"). While the space limitations of the brochure format make short chemical symbols appealing, members of the public may not recognize those symbols. Minnesota Power does not see the necessity of using the English names throughout the brochure, but Dakota Electric and Xcel largely agree with the proposal. The Commission finds this proposal reasonable, and will direct the utilities to use the English names for emissions throughout their brochures, just as Xcel has done in its draft brochure.

ME3 asks that the term "nitrogen oxides" be used in the brochure instead of "nitrogen" or "nitrogen oxide." Utilities do not contribute to acid rain and smog by emitting pure nitrogen into the atmosphere; rather, they emit nitrogen combined with oxygen in various ratios. The term "nitrogen oxides" conveys the fact that the nitrogen at issue has been oxidized, and that multiple types of nitrogen-oxygen compounds result. OTP and Xcel agree with this proposal. The Commission finds this argument reasonable, and will direct utilities to use the term "nitrogen oxides" in their brochure in lieu of "nitrogen" or "nitrogen oxide."

## **E. Efficiency**

The pie chart displays the resources that a utility uses to meet customer demand. While conservation may help a utility meet its demand, the Commission acknowledged in its October 2 Order the complexity of trying to display conservation as part of the pie chart. Instead, the Commission concluded that a utility could address the role of conservation elsewhere in the brochure, stating the amount of electricity conserved and the amount of air emissions avoided.

In its compliance filing, Minnesota Power includes a box below its pie chart listing the extent to which conservation reduced five types of emissions. The box begins with the statement, "Minnesota Power's consumer energy conservation programs reduced our need to generate electricity to meet your needs by 239,222,141 kWh (3%)." MPCA recommends that the other utilities incorporate similar language into their brochures, in that they disclose the results of conservation in terms of the percent of the electricity supplied. Dakota Electric and Xcel generally find this recommendation agreeable.

The Commission favors this language as well. It conveys factual information in a manner that links customer participation in conservation programs with measured results. If an electric utility elects not to include conservation within its pie chart, the Commission will direct it to include in its brochure language similar to the language drafted by Minnesota Power.

## **F. Conservation measures**

The October 2 Order directed the utilities to include conservation and other programs in the brochure in a manner demonstrated by Minnesota Power. In keeping with this directive, the Department suggests that Alliant add a discussion of its conservation improvement programs (CIP), and that Xcel add information about its voluntary renewable energy rider. Alliant and Xcel agree with this suggestion. The Commission finds these suggestions reasonable, and will adopt them.

## **IV. Procedural Issues**

As this docket approaches the implementation phase, the Commission will establish three procedural steps.

- First, to ensure implementation of the decisions made in this docket, the Commission will direct the utilities to file their final brochures with the Commission and the Department within 60 days of this Order.
- Second, MPCA asks the Commission to take steps to permit verification of the data contained in the brochures. Xcel proposes that the utilities maintain documentation on the data and methods for developing the information in their brochures. The Commission finds this proposal reasonable, and will direct the utilities to retain the records supporting the claims in their brochures for two years.

- Finally, MPCA suggests that the Commission establish a means to determine whether these brochures achieve the goal of informing the public. The Commission regards the MPCA's suggestion as a sound management practice, and will direct the Department to develop a proposal for conducting such an evaluation.

This docket has required some unusually detailed directions from the Commission. The Commission is pleased with the parties' progress in implementing these directions and is looking forward to seeing the final products in 60 days.

The Commission will so order.

### **ORDER**

1. Each electric utility shall rank its generation sources by cost in its brochure, but need not provide its system average cost for each generation source.
2. Each electric utility shall disclose its emissions from purchased power in its brochure unless the utility, after diligent attempt, cannot determine the source of that power. If unknown, the utility may list "purchased power" among its power sources. In this case, the utility must disclose that "Purchases come from fuel sources (nuclear, coal, natural gas, etc.) from throughout the region" and, for purposes of calculating particulate matter and air emissions, the utility must use data based on the MAPP system's average emissions as reported by the MPCA.
3. Each electric utility shall maintain consistency between the fuel sources contained in the pie chart and any ranking of cost and reliability.
4. Xcel shall modify the color of its pie chart regarding fuel sources to comply with the Commission's Order.
5. Each electric utility shall report air emissions by fuel type on a chart as recommended by ME3, using units of pounds per 1000 kWh.
6. The Commission's October 2, 2001 order for the brochures to include generation source information language "similar to that proposed by Dakota Electric (and Great River Energy)" was not intended to replace the "How does electricity affect the environment?" section of the Joint Proposal

7. Each electric utility shall include in its brochure, beneath the chart labeled “Air Emissions by Fuel Type,” the following:

*How do Air Emissions Affect the Environment?*

Carbon Dioxide (CO<sub>2</sub>) is the principal greenhouse gas linked to global warming. Nitrogen Oxides (NO<sub>x</sub>) and Sulfur Dioxide (SO<sub>2</sub>) contribute to acid rain; NO<sub>x</sub> also contribute to smog.

Particulate matter (sometimes called soot) contributes to asthma attacks and other respiratory illnesses.

Mercury accumulates in some fish to levels exceeding current health department guidelines.

The Minnesota Pollution Control Agency is responsible for ensuring that emissions from utilities meet air quality standards for NO<sub>x</sub>, SO<sub>2</sub> and smog.

8. Each electric utility shall report total carbon dioxide emissions from biomass facilities, rather than net emissions, in its brochure.
9. Each electric utility shall include the following language in its brochures:

Statewide, coal-fired power plants in Minnesota generate: 55% of all SO<sub>2</sub> pollution, 36% of all CO<sub>2</sub> pollution, 32% of all mercury pollution and 19% of all NO<sub>x</sub> pollution.\* All other generation source contribute a small amount of pollution.

\*Pollution is emitted from many places, such as industrial and commercial sources, cars, trucks, and home heating.

10. Each electric utility shall include the following language in its brochure: "Nuclear energy does not produce these air emissions, but does produce both high- and low-level nuclear waste."
11. Each electric utility shall include the following in its brochure:

Wind and solar power produce none of these air emission. Large hydro power may alter ecosystems and cultural resources depending upon the location and design of the facility.
12. Each electric utility shall remove from its brochure sentences relating to the cost of solar power and the lack of large solar installations in Minnesota.

13. Each electric utility shall –
  - A. use throughout its brochure the full English name of its emissions rather than the chemical symbol, and
  - B. use the term "nitrogen oxides" in its brochure instead of "nitrogen" or "nitrogen oxide."
14. If a utility does not include conservation in its pie chart, the utility shall add a statement similar to the one proposed by Minnesota Power identifying the extent to which conservation has reduced the utility's need to generate electricity.
15. Alliant shall include information on its CIP Programs in its brochure.
16. Xcel shall include information about its voluntary renewable energy rider in its brochure.
17. Each utility shall file with the Commission and the Department a final brochure within 60 days of the Order and prior to customer distribution to determine compliance with this decisions of this docket.
18. The utilities shall retain the records supporting the claims in their brochures for two years.
19. The Department shall develop a proposal for evaluating the effectiveness of the environmental disclosure brochures at informing the public.
20. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar  
Executive Secretary

(S E A L)

This document can be made available in alternative formats (i.e., large print or audio tape) by calling (651) 297-4596 (voice), (651) 297-1200 (TTY), or 1-800-627-3529 (TTY relay service).